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EXAMINER	
WANG, LEMING	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/078,342	Applicant(s) LIWAK, MICHAEL	
	Examiner Leming Wang	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *21 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☑ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 16 is objected because a claim can not depend itself. For examination purpose, claim 16 is treated as depending on claim 15. Correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 14, it is unclear what is meant by " the network is not self monitoring ". The terminology is inconsistent with the specification, for example, [section 0015], page 15 of specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1 – 3, 5 - 8, 10 -14,15-17, and 19-36 are rejected under 35 U.S.C. 102(b) as being anticipated by *Benie et al.* (US Patent No: 6,701,087)

Regarding claim 1, *Benie et al.* teach that a network architecture for supporting switched burst optical data traffic comprising a plurality of optically coupled nodes (202, 204, 206, 208, 234, 236, Fig.2) comprising input ports and output ports (Col.3, line 4; Fig.2), wherein, in use, at each optical output port of each node (202, 204, 206, 208, 234, 236, Fig.2), a wavelength division multiplexed optical signal is provided (Col.36, lines 36-37) having a predetermined relative intensity profile (Col.2, line 64; Col.6, lines 20-24) such that each optical input port (For example, 322, node 204, Fig.3) coupled within the network and for receiving a wavelength division multiplexed signal from an output port (For example, 320, node 202, Fig.3) is for receiving a wavelength division multiplexed signal with an approximately same relative intensity profile (Col.4, lines 6-7, 21; Col.7, lines 42-43), wherein at least a node support switching (834, Fig.8; Col.1, line 27; Col.8, line 56) of the wavelength division multiplexed signals and wherein at least some of the optically coupled nodes are absent circuitry for performing dynamic gain equalization (Col.2, lines 45-51; Col.36, lines 63-66), the predetermined relative intensity profile providing relative intensities between wavelength channels (Col.2, line 42-47, 64; Col.6, lines 20-24, 50) for which an optical data signal is present.

Regarding claim 2, *Benie et al.* teach that a network architecture according to claim 1 wherein the at least a node supporting switching (834, Fig.8; Col.1, line 27; Col.8, line 56) is a node supporting channel selective switching (Fig.1; 412, Fig.4; Col.9, lines 59-67; Col.36, lines 11-12, 36-38; Col.37, lines 47-48) for routing different optical signals within different wavelength channels from within different received multiplexed signals to a same multiplexed optical signal provided at a same output port thereof (Col.8, 65-67; Col.9, lines 1-5; Col.12, 60-63).

Regarding claim 3, *Benie et al.* teach that a network architecture according to claim 2 wherein the relative intensity profile provided at an output port (for example, 800, Fig.8) is substantially maintained stable over time (Col.16, lines 5-8).

Regarding claim 5, *Benie et al.* teach that a network architecture according to claim 3 wherein the at least one of the at least a node supporting switching is absent electronic circuitry for regeneration of optical signals propagating therein to support optical-electrical-optical dynamic gain equalization (Col.2, lines 45-51; Col.36, lines 63-66).

Regarding claim 6, *Benie et al.* teach that a network architecture according to claim 3 wherein the relative intensity provided at an output port is a relative intensity profile defining relative intensities for a predetermined number of wavelength channels (Col.2, line 64; Col.14, lines 11-15; Col.22, lines 17-21, 60-62) and wherein a signal within said wavelength.

Regarding claim 7, *Benie et al.* teach that a network architecture according to claim 5 wherein a wavelength division multiplexed signal absent of one or more signals still has the predetermined relative intensity profile (Col.14, lines 58-59; Col.22, lines 17-21; Col.23, lines 5-21, 36-45).

Regarding claim 8, *Benie et al.* teach that a network architecture according to claim 1, wherein the relative intensity profile provided at an output port, is a relative intensity profile defining relative intensities (Col.2, line 64; Col.6, lines 20-24) for a predetermined number of wavelength channels (Col.12, lines 43-45, 48-58; Col.5, lines 19-22, 24-28; Col.13, lines 12-13, 18-20; Col.14, lines 27-29; Col.22, lines 17-21, 60-62) and wherein a signal within said wavelength channel appears with said relative intensity or is absent from the wavelength division multiplexed signal (Col.4, lines 6-7, 21; Col.7, lines 42-43).

Regarding claim 10, *Benie et al.* teach that a network architecture according to claim 1 wherein the at least some of the optically coupled nodes are absent electronic circuitry for regeneration of optical signals propagating therein to support optical-electrical-optical dynamic gain equalization (Col.2, lines 45-51; Col.36, lines 63-66).

Regarding claim 11, *Benie et al.* teach that a network architecture according to claim 1 wherein at least one of the at least a node supporting switching (834, Fig.8; Col.1, line 27; Col.8, line 56) performs only (Col.6, lines 58-60) other than active manipulation of the relative intensity profile such that changes in the relative intensity profile of signals received result in changes in the relative intensity profile of signals provided (Col.2, lines 62-67).

Regarding claim 12, *Benie et al.* teach that a network architecture according to claim 1 wherein an output port is optically coupled to an input port of another node forming an optical path there between and wherein the attenuation within the optical path is compensated by a fixed amplification (Col.2, lines 45-51; Col.36, lines 63-66) set when the network is installed (Col.14, lines 24-26) or during a calibration of the network (Col.5, lines 57-61) such that signals do not require monitoring when received (Col.2, lines 65-67).

Regarding claim 13, *Benie et al.* teach that a network architecture according to claim 1 wherein the relative intensity profiles are determined before or during installation (Col.14, lines 24-26) and wherein, in use, variation of the relative intensities of individual multiplexed signals within single wavelength channels is other than performed (Col.23, lines 36-40).

Regarding 14, as it is understood in view of the above 112 problem, *Benie et al.* teach that the network is not self monitoring with respect to relative optical intensity (Col.2, lines 65-67).

Regarding claim15, *Benie et al.* teach that a network node for supporting burst optical data traffic comprising: a first node (202, fig.2) having a plurality of input ports and an output port, the first node for being provided a plurality of input wavelength division multiplexed signals (Col.4, lines 43-46) each including channel signals within different wavelength channels having a same predetermined intensity profile (Col.4, lines 6-7, 21; Col.7, lines 42-43), for switching of the channel signals (Col.6, lines 54-60) and for providing a first output signal having channel signals from different optical signals of the plurality of input wavelength division multiplexed signals (Col.4, lines 43-46; Col.41, lines 12-14; Col.23, lines 66-67, Col.24, lines 1- 4 and 1014, Fig.10) and having a first predetermined output intensity profile (Col.2, line 42-47, 64; Col.6, lines 20-24, 50), the first node absent a dynamic gain equalizer for actively equalizing wavelength division multiplexed signals provided at the output port thereof <u>or</u> at the input port thereof (Col.2, lines 45-51; Col.36, lines 63-66).

Regarding claim16, *Benie et al.* teach that a network node according to claim 16 wherein the relative intensity profile provided still the output port is a relative intensity profile defining relative intensities for a predetermined number of wavelength channels and wherein a signal within said wavelength channel appears with said relative intensity or is absent from the wavelength division multiplexed signal (Col.4, lines 6-7, 21; Col.7, lines 42-43).

Regarding claim 17, *Benie et al.* teach that a network node according to claim 16 wherein the same predetermined intensity profile does not vary in time (Col.16, lines 5-8).

Regarding claim 19, *Benie et al.* teach that a network node according to claim 17 wherein the intensity is maintained at a constant level until changes to the network infrastructure optically proximate the node are made (Col.34, lines 26-35),

Regarding claim 20, *Benie et al.* teach that a network node according to claim 17 wherein the network node is absent optical monitoring (301,302, 303, 304, Fig.3).

Regarding claim 21, *Benie et al.* teach that a network node according to claim 16 wherein the relative intensity profile provided at an input port is a relative intensity profile defining relative intensities for a predetermined number of wavelength channels (Col.2, line 64; Col.6, lines 20-24; Col.22, lines 17-21, 60-62) and wherein a signal within said wavelength channel appears with said relative intensity or is absent from the wavelength division multiplexed signal (Col.22, lines 17-21; Col.23, lines 36-40).

Regarding claim 22, *Benie et al.* teach that a network node according to claim 21 wherein the same predetermined intensity profile does not vary in time (Col.16, lines 5-8).

Regarding claim 23, *Benie et al.* teach that a network node according to claim 22 wherein the network node is absent optical monitoring (301,302, 303, 304, Fig.3).

Regarding claim 24, *Benie et al.* teach that a network node according claim 17 additionally comprising: at least an optical monitor for monitoring the wavelength profile of optical signals optically proximate the node (PM 402, Fig.4; Col.10, lines 43-44), each of the at least a monitor having an output port (410, Fig.4) for providing wavelength

profile data (Col.10, lines 43-49) and, a network monitoring unit (Col.14, lines 36-38) for receiving wavelength profile data and maintaining a database of wavelength profile information.

Regarding claim 25, *Benie et al.* teach that a network node according to claim 24 wherein the network monitoring unit (CPM, Fig.8; Col.14, lines 36-38) is for carrying out analysis of wavelength profile data in comparison to wavelength profile information stored in the database (Col.17, lines 30-35; 904-906, 918-924, Fig.9A).

Regarding claim 26, *Benie et al.* teach that an optical component comprising: a first input port (212, 202, Fig.2) for receiving a plurality of optical signals (Col.4, lines 45-46) multiplexed within a same waveguide (WDM, Fig.2); a second input port (218, Fig.2) for receiving data (Col.4, lines 54-56), the data indicative of signal intensities of signals within a multiplexed signal (Col.4, lines 54-56), the signal intensities detected at each of a plurality of input ports (230, Fig.2) of another optical component (206, Fig.2); and, an optical amplifier /attenuator (Electrical Gain / 2304, Fig.23) for amplifying optical signals (Col.6, lines 56-57) within the multiplexed optical signal independently (Col.3, lines 67; Col.5, lines 19-22), the amplification performed in dependence upon a signal received at the second input port (Col.14, lines 11-15; Col.39, lines 44-46), the amplification for equalizing signal intensities (Col.35, lines 26-29) at the input port of the another optical component (206, Fig.2; Col.35, lines 24-29), and the amplification performed in an approximately fixed fashion (Col.36, lines 63-66) wherein the amplification other than varies dynamically with signal intensity of the received data signals (Col.36, line 66), wherein the optical component is absent gain equalization means prior to the signal being provided the optical amplifier (Fig.3).

Regarding claim 27, *Benie et al.* teach that an optical component according to claim 26 comprising a third input port (210, Fig.2) for receiving a plurality of optical signals (Col.4, lines 43-45) multiplexed within a same waveguide, wherein the optical amplifier/attenuator (Electrical Gain / 2304, Fig.23) is for amplifying optical signals within

the multiplexed optical signal independently (Col.3, lines 67; col.5, lines 19-22), the amplification performed (Col.6, lines 56-57) in dependence upon a signal received at the second input port (218 Fig.2; Col.3, lines 67; col.5, lines 19-22), the amplification for equalizing signal intensities (Col.35, lines 26-29) at each of the input port and the third input port (230, Fig.2) of the another optical component (206, Fig.2) , and the amplification performed in an approximately fixed fashion (Col.36, lines 63-66) wherein the amplification other than varies dynamically with signal intensity of the received data signals (Col.36, line 66).

Regarding claims 28 and 29, *Benie et al.* teach that an optical component according to claim 26 wherein the relative intensity profile provided at the **second input port** is a relative intensity profile defining relative intensities for a predetermined number of wavelength channels (Col.12, lines 43-45, 48-58; Col.5, lines 19-22, 24-28; Col.13, lines 12-13, 18-20; Col.14, lines 27-29; Col.22, lines 17-21, 60-62) and wherein a signal within said wavelength channel appears with said relative intensity or is absent from the wavelength division multiplexed signal (Col.22, lines 17-21; Col.23, lines 36-40).

Regarding claim 30, *Benie et al.* teach that an optical component according to claim 28 wherein the relative intensity profile provided at the second input port does not vary with time (Col.16, lines 5-8).

Regarding claim 31, *Benie et al.* teach that an optical component according to claim 26 wherein the optical component is absent electronic circuitry for regeneration of optical signals propagating therein to support optical-electrical-optical dynamic gain equalization (Col.2, lines 45-51; Col.36, lines 63-66).

Regarding claim 32, *Benie et al.* teach that a method of equalizing a multiplexed optical signal comprising the steps of: providing a first optical component (202, Fig.2) and a second other optical component (206, Fig.2) separated by a distance and disposed at different network locations (200, Fig.2); providing a wavelength multiplexed

optical signal to a first input port (212, Fig.2) of the first optical component (202, Fig.2); monitoring the provided optical signal to determine an intensity profile thereof proximate the first input port (PM 402, Fig.4; Col.6, lines 1-2; Col.9, lines 27-29; Col.10, lines 43-52); providing a feedback signal indicative of the monitored intensity profile to the second other optical component (206, Fig.2; Col.4, Col.6, lines 3-4; lines 43-46; Col.41, lines 12-14); receiving the feedback signal at the second other optical component (218, Fig.2; Col.4, lines 53-56; Col.14, lines 7-10; Col.39, lines 44-46); within the second other optical component, setting an approximately fixed amplification (Col.2, lines 45-51; Col.36, lines 63-66) for each of different optical signals within said wavelength multiplexed optical signal independently (Col.3, lines 67; col.5, lines 19-22) in dependence upon the received feedback signal (Col.14, lines 11-15; Col.39, lines 44-46); and, providing the amplified multiplexed optical signal (Col.6, lines 3-4; Col.23, lines 66-67, Col.24, lines 1- 4 and 1014, Fig.10; Col.35. lines 1-3; Col.36, lines 65-66) from the second other optical component (206, Fig.2) to the first optical component (202, Fig.2), the fixed amplification (Col.36, lines 63-66) for resulting in an approximately fixed relative intensity profile (Col.39, lines 51-53; Col.41, lines 20-25) for each amplified multiplexed optical signal.

Regarding claim 33, *Benie et al.* teach that a method of equalizing a multiplexed optical signal according to claim 32 wherein the first optical component comprises two input ports (212, 218, Fig.2) each for receiving a multiplexed optical signal (Col.14, lines 9-10) and wherein the provided feedback signal is dependent upon a multiplexed optical signal intensity profile and a predetermined optical intensity profile (Col.14, lines 11-15; Col.39, lines 44-46).

Regarding claim 34, *Benie et al.* teach that a method of equalizing a multiplexed optical signal according to claim 32 wherein the first optical component (202, Fig.2) comprises two input ports (212, 218, Fig.2) each for receiving a multiplexed optical signal (Col.14, lines 9-10) and wherein the provided feedback signal is dependent upon

each of the two multiplexed optical signal intensity profiles (Col.14, lines 11-15; Col.39, lines 44-46).

Regarding claim 35, *Benie et al.* teach that a method of equalizing a multiplexed optical signal comprising the steps of providing a first wavelength multiplexed optical signal to a first input port (212, Fig.2; Col.4, lines 43-46) of a first optical component (202, Fig.2); providing a second wavelength multiplexed optical signal to a second input port (218, Fig.2; Col.4, lines 53-56) of the first optical component (202, Fig.2); monitoring the first optical signal to determine an intensity profile thereof proximate the first input port (PM 402, Fig.4; Col.6, lines 1-2; Col.9, lines 27-29; Col.10, lines 43-52); monitoring the second optical signal to determine an intensity profile thereof proximate the second input port (PM 402, Fig.4; Col.6, lines 1-2; Col.9, lines 27-29; Col.10, lines 43-52); providing a first feedback signal indicative of the monitored intensity profile to a second other optical component (206, Fig.2; Col.4, lines 43-46; Col.6, lines 3-4; Col.41, lines 12-14); providing a second feedback signal indicative of the monitored intensity profile to a third other optical component (204, Fig.2; Col.4, lines 43-46; Col.6, lines 3-4; Col.41, lines 12-14); receiving the first feedback signal at the second other optical component (206, Fig.2; Col.4, lines 43-46; Col.39, lines 44-46); receiving the second feedback signal at the third other optical component (204, Fig.2; Col.4, lines 43-46; Col.41, lines 12-14); within the second other optical component (206, Fig.2), amplifying optical signals (Col.6, lines 56-57; Col.35. lines 1-3; Col.36, lines 65-66) within said wavelength multiplexed optical signal independently (Col.3, lines 67; col.5, lines 19-22) in dependence upon the received first feedback signal (Col.14, lines 11-15; Col.39, lines 44-46); within the third other optical component (204, Fig.2), amplifying optical signals (Col.6, lines 56-57; Col.35. lines 1-3; Col.36, lines 65-66) within said wavelength multiplexed optical signal independently (Col.3, lines 67; col.5, lines 19-22) in dependence upon the received second feedback signal (Col.14, lines 11-15; Col.39, lines 44-46); providing the amplified multiplexed optical signal (Col.4, lines 43-46; Col.41, lines 12-14; Col.23, lines 66-67, Col.24, lines 1- 4 and 1014, Fig.10) from the second other optical component (206, Fig.2) to the first optical component (202, Fig.2);

and providing the amplified multiplexed optical signal (Col.4, lines 43-46; Col.41, lines 12-14; Col.23, lines 66-67, Col.24, lines 1- 4 and 1014, Fig.10) from the third other optical component (204, Fig.2) to the first optical component (202, Fig.2), wherein the intensity profiles of the received multiplexed optical signals at the first optical component are within known tolerances of at least a predetermined intensity profile (Col.4, lines 1-5).

Regarding claim 36, *Benie et al.* teach that a method of equalizing a multiplexed optical signal according to claim 35 wherein the in intensity profiles are approximately identical intensity profiles (Col.39, lines 51-53; Col.41, lines 20-25) for signals within same wavelength channels when present.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 4, 9, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Benie et al.* (US Patent No: 6,701,087) in view of *Mallard, Jr. et al.* (US Patent No: 6,650,839)

Regarding claim 4, *Benie et al.* differs from the claimed invention in that *Benie et al.* do not teach the network comprises transmitters and receivers for supporting optical

burst traffic. However, *Mallard, Jr. et al.* disclose a transmitter (Col.3, lines 50-52). Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate an optical transmitter, such as the one of *Mallard, Jr. et al.*, into the transmission system of *Benie et al.* in order to send upstream data being monitored and controlled by a central unit in an optical network.

Regarding claim 9, *Benie et al.* further teach that a network architecture according to claim 4 wherein a wavelength division multiplexed signal absent of one or more signals still has the predetermined relative intensity profile (Col.14, lines 58-59; Col.22, lines 18-21; Col.23, lines 5-21, 36-45).

Regarding claim 18, *Benie et al.* furtherteach that a network node according to claim 17 wherein the intensity is maintained at a constant level (Col.34, line 26) for a plurality of signals.

Benie et al. differs from the claimed invention in that *Benie et al.* do not teach the different sequential data bursts. However, *Mallard, Jr. et al.* disclose burst data in TDMA format (Col.3, line 7). Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the knowledge about burst data, such as the one taught by *Mallard, Jr. et al.*, into the transmission system of *Benie et al.* in order to send information in the timed slots signed by a central unit in an optical network.

8. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Benie et al.* (US Patent No: 6,701,087) in view of *Jiang et al.* (US Patent No: 6,859,622)

Regarding claim 37, *Benie et al.* further teach that monitoring the intensity of the signal proximate an amplifier/attenuator (Col.11, lines 51-58, 604, 612, 615, 618, 620, Fig.6), providing data from the monitor to the amplifier/attenuator (Col.11, lines 51-58;

Col.22, lines 17-21), setting the amplifier/attenuator to a predetermine approximately fixed gain response (Col.38, lines 44-45) in dependence upon the data provided from the monitor (Col.11, lines 36-39, 54-57; Col.37, lines 63-67, Col.38, lines 1-2), providing a wavelength multiplexed data signal from the transmitter (Col.39, lines 19-20), amplifying the wavelength multiplexed data signal (Col.6, lines 56-57; Col.35. lines 1-3; Col.36, lines 65-66) according to the approximately fixed gain response of the amplifier/attenuator and absent dynamic gain equalization (Col.39, lines 51-53; Col.41, lines 20-25).

Benie et al. differs from the claimed invention in that *Benie et al.* do not teach providing a test signal with a known intensity from a transmitter. However, *Jiang et al.* teach using a test signal (Col.3, lines 43-47). Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate a transmitter, such as the one of *Jiang et al.*, into the transmission system of *Benie et al.* in order to obtain the information used to determine the power parameters of configuration of an optical network.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. *Taga et al.* (US Patent No: 5,790,289), is about pre-emphasis technique.

2. *Wachsman et al.* (US Patent No: 6,829,405) is about reconfigurable optical Add/drop MUX.

3. *Roberts* (US Patent No: 6,252,692) is about technique to measure the dispersion in optical path.

4. *DeGrange, Jr. n et al.* (US Patent No: 6,600,596) is about amplifier power controlling in optical transmission system.

5. *Ford et al.* (US Patent No: 6,392,769) is about automatic level control for optical system.

6. *Geiger et al.* (US Patent No: 6,748,169) is about measuring signal quality for optical data.

7. *Terahara* (US Patent No: 6,134,034) is about controlling power level of individual signal of WDM light.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leming Wang whose telephone number is 571 272 3030. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272 3112. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lw

JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600